

CLAIMS

What is claimed is:

1. A solid ink supply container adapted for use with solid ink printers, said
5 container comprising:

removable housing adapted to receive solid ink masses, said housing adapted to
be coupled to at least one printhead;

a heater subsumed by said housing, said heater adapted to liquefy solid ink
masses;

10 an outlet port adapted to facilitate fluid ink transfer to at least one printhead;

an ink sensor adapted to sense the amount of ink in said supply container;

at least one electronic storage device attached to said housing, said electronic
storage device adapted to exchange printer operation information with the printer to
which said ink supply container is attached; and

15 electrical contacts attached to said housing; said electrical contacts adapted to ex-
change power and information between said printer, and exchange power and information
between said storage device and other components of said housing.

2. A method of replacing solid ink for a solid ink printer, said method com-
prising:

20 providing at least one solid ink supply container comprising:

removable housing adapted to receive solid ink masses, said hous-
ing adapted to be coupled to at least one printhead;

a heater subsumed by said housing, said heater adapted to liquefy solid ink masses;

a fluid outlet port attached to said housing, said port adapted to output liquefied ink to said at least one printhead;

5 an electronic storage device attached to said housing, said electronic storage device adapted to store printer operation information transferred to it by a printer to which said ink supply container is attached; and

electrical contacts attached to said housing; said electrical contacts adapted to exchange power and information between said printer, and exchange power and information between said storage device and other components of said housing;

10 removing said container from said printer when container ink is depleted; recycling said container at a recycling operation; receiving a replacement container from said recycling operation with new solid ink therein; and

installing said replacement container for use with said printer.

3. A system for supplying solid ink to a solid ink printer comprising:

a solid ink supply container adapted for use with solid ink printers, said container comprising:

20 removable housing adapted to receive solid ink masses, said housing adapted to be coupled to at least one printhead;

a heater subsumed by said housing, said heater adapted to liquefy solid ink masses;

a fluid outlet port attached to said housing, said port adapted to output liquefied ink to said at least one printhead;

5 an electronic storage device attached to said housing, said electronic storage device adapted to store printer operation information transferred to it by a printer to which said ink supply container is attached; and

electrical contacts attached to said housing; said electrical contacts adapted to exchange power and information between said printer, and exchange power and information between said storage device and other
10 components of said housing; and

4. The method of Claim 2, further comprising:
downloading printer operation information from said container by an instrumentality of said recycling operation.

15 5. The method of Claim 2, further comprising:
automatically detecting the level of ink in said housing; and
generating by said container and transmitting to said printer, a low ink level signal when the ink level reaches a predefined level.

6. The method of Claim 2, further comprising:
20 automatically detecting the level of ink in said housing;
generating by said container and transmitting to said printer, a low ink level signal when the ink level reaches a predefined low level; and

generating by said printer, a user perceivable indication that ink in said container has reached a predefined low level.

7. The method of Claim 2, further comprising:
providing a plurality of ink supply containers;
5 automatically detecting the level of ink in the housings;
automatically switching the supply of ink from one ink supply container when the ink level in that container reaches a predetermined threshold level, to another ink supply container.

8. The method of Claim 2, wherein said printer operation information comprises color table information.
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9. The method of Claim 2, wherein said printer operation information comprises thermal operation set point information.

10. The supply container of Claim 1, wherein said fluid output port further comprises:
15 a fluid outlet valve adapted to output liquefied ink to said at least one printhead.

11. The supply container of Claim 1, wherein said ink sensor further comprises:
a rheostat.

12. The supply container of Claim 1, wherein said printer operation information comprises color table information.
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13. The supply container of Claim 1, wherein said printer operation information comprises thermal operation set point information.

14. The system of Claim 3, wherein said supply container further comprises:
an ink level sensor coupled to said electrical contacts, said ink level sensor adapted to detect the level of ink in said housing.

15. The system of Claim 3, wherein said supply container further comprises:
5 an ink level sensor coupled to said electrical contacts, said ink level sensor adapted to detect the level of ink in said housing;
wherein said ink level sensor comprises a rheostat.

16. The system of Claim 3 further comprising a plurality of ink supply containers, and further comprising:
10 ink supply switch adapted to automatically switch the supply of ink from one ink supply container when the ink level in that container reaches a predetermined threshold level, to another ink supply container.

17. The system of Claim 3, wherein said printer operation information comprises color table information.

15 18. The system of Claim 3, wherein said printer operation information comprises thermal operation set point information.